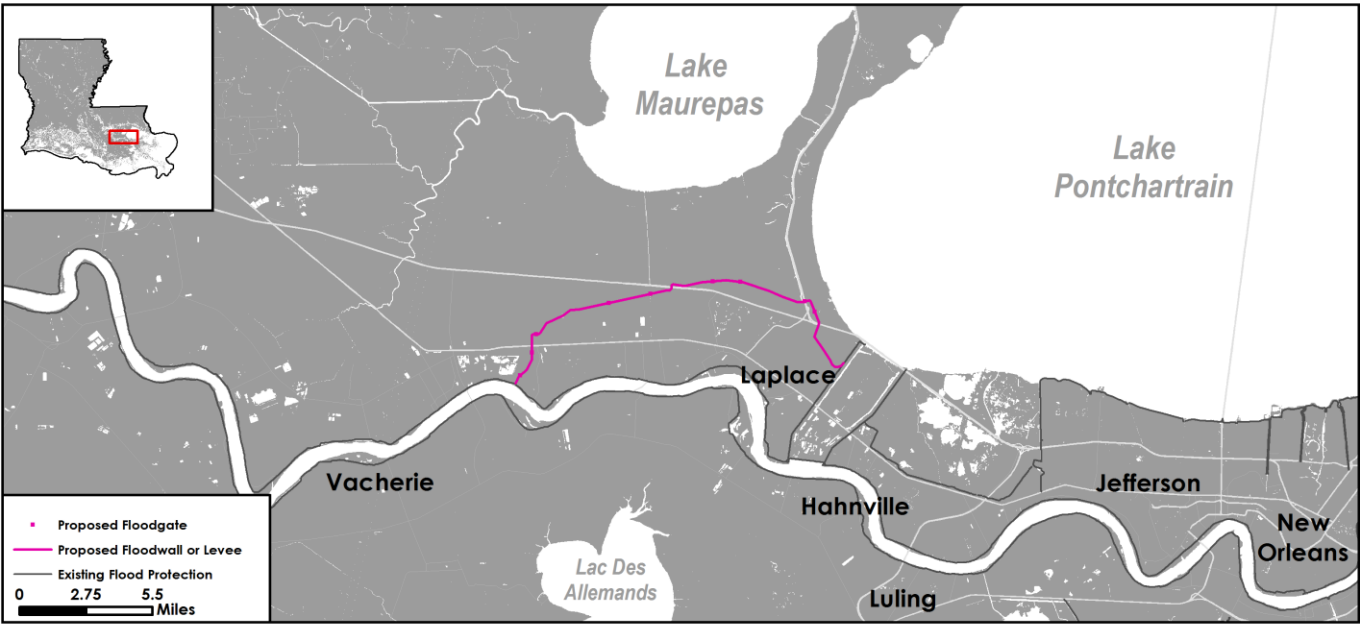


West Shore Lake Pontchartrain

Structural Protection

Project ID: 001.HP.05



Description

Construction of a levee to an elevation between 16 and 19 feet NAVD88 in the Laplace area. Project features approximately 91,000 feet of earthen levee, approximately 5,000 feet of T-wall, (1) 18-foot sluice gate, (1) 25-foot sluice gate, (2) 25-foot swing gates, (1) 150-foot roller gate, and (4) pump stations with a total capacity of 2,150 cfs.

Scale of Influence



Project Location

St. Charles Parish; St. John Parish; St. James Parish

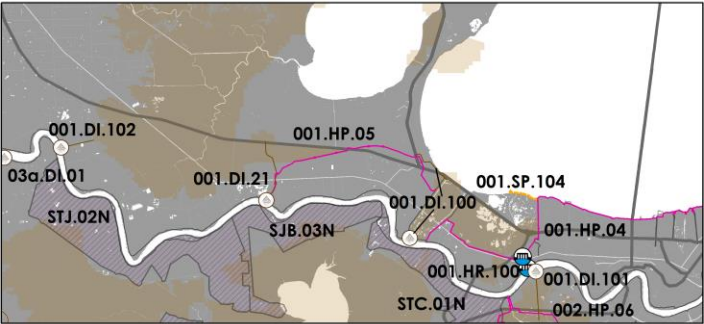
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	\$78,700,000
Construction	\$543,800,000
Operations & Maintenance	\$107,900,000
Total	\$730,400,000

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population <small>U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)</small>	44,400
Percent of Population who are Low-to-Moderate Income <small>American Community Survey (2006 - 2010)</small>	38%
Number of Severe Repetitive Loss Properties <small>Governor's Office of Homeland Security (2015)</small>	206

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Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	FWOA	FWP	Difference
0	\$809 M	-	-
25	\$2,222 M	\$1,956 M	\$266 M
50	\$6,499 M	\$5,634 M	\$865 M

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	Protected	Total
Airport Facility	-	-
Gas Processing	-	1
Government/Military	-	3
Electric Power Substation	5	58
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	13
Electric Power Plant	1	16
Port	-	3
Petroleum Pump Station	-	1
Refinery	-	6
Water and Sewer	-	12
Strategic Petroleum Reserve	-	-
Total	6	113

Table 3: Economic Damage by Return Period at Year 50

Risk Region	50 Year		100 Year		500 Year	
	FWOA	FWP	FWOA	FWP	FWOA	FWP
Ascension - Prairieville/Sorrento	\$17,222 M	\$17,362 M	\$19,043 M	\$19,167 M	\$19,809 M	\$19,844 M
Jefferson - Kenner/Metairie	\$1,885 M	\$1,918 M	\$10,376 M	\$12,738 M	\$145,548 M	\$185,646 M
Livingston	\$1,315 M	\$1,316 M	\$1,536 M	\$1,536 M	\$1,604 M	\$1,610 M
St. Charles - Destrehan	\$21 M	\$21 M	\$21 M	\$21 M	\$45 M	\$46 M
St. Charles - Montz	\$48 M	\$2 M	\$101 M	\$2 M	\$196 M	\$2 M
St. James - Convent	\$2,431 M	\$2,430 M	\$2,703 M	\$2,713 M	\$2,955 M	\$2,959 M
St. John the Baptist - Garyville	\$141 M	\$135 M	\$166 M	\$137 M	\$217 M	\$210 M
St. John the Baptist - Laplace/Reserve	\$17,216 M	< \$1 M	\$20,053 M	< \$1 M	\$25,432 M	< \$1 M
Tangipahoa	\$596 M	\$620 M	\$986 M	\$1,024 M	\$1,641 M	\$1,649 M
Total	\$40,874 M	\$23,804 M	\$54,986 M	\$37,339 M	\$197,447 M	\$211,965 M